REMARKS

Applicants certainly appreciate the allowance of claims 9-15. Applicants also appreciate the indication of allowance of claims 5, 6, 17 and 18 if amended to become independent, incorporating the requirements of the base claims and any intervening claims. However, applicants prefers to not amend claims 5, 6, 17 and 18 to become independent as suggested by the examiner. Claim 5 has been amended to become independent, but it does not contain the requirements of original claims 1 and 5. Applicant is also making claim 8 independent. Please charge the fee for the two additional independent claims to Baker Hughes Inc. deposit account 02-0429.

Applicants are amending allowed dependent claims 12 and 14 and independent claim 13 to remove language inconsistent with the specification. The inconsistent language implies that a portion of the discharge of the rotary pump flows directly into the intake of the reciprocating pump. Referring to the drawings, intake chamber 29 of reciprocating pump 27 draws its fluid from exhaust conduit 33, which is connected to the exhaust side of drive piston 39 and leads into the well below the intake of rotary pump 19. The discharge of rotary pump 19 leads only to the lower and upper sides of drive piston 39, not also to the intake of reciprocating pump 27.

Applicants submit that removing this language from claim 13 does not detract from the patentability of the claim because Holmberg discloses delivering part of the discharge of rotary pump 5 to the intake of reciprocating pump 18. Fluid is delivered to the intake of pump 18 of Holmberg via tube 12 while pump piston 20 moves downward.. Tube 12 is supplied with fluid from rotary pump 5 at the same time rotary pump 5 is supplying fluid to the upper sides of pistons 16 via tube 12. The intake of reciprocating pump 18 is in parallel with the power stroke supply of fluid to drive pistons 16. Thus Homberg teaches in his first embodiment what

applicants were erroneously claiming in claim 13. Also, claim 13 distinguishes over Holmberg by requiring that the pump or secondary piston be of smaller diameter than the primary or drive piston. In Holmberg, they are the same diameter.

Claim 1 as amended requires a conduit leading from the intake of the reciprocating pump alongside the rotary pump to below the intake of the rotary pump, for drawing well fluid into the reciprocating pump from a point below the intake of the rotary pump. In applicants' drawings, this conduit is conduit 33. In the first embodiment of Holmberg, shown in Figures 1-7, the intake of reciprocating pump 18 is via tube 12 and check valve 21 as shown in Figure 2. Tube 12 leads to directional valve 11, shown in Figure 5. Tube 12 is supplied with intake fluid while pump piston 20 is moving downward. The supply is from the discharge of rotary pump 5, which is simultaneously supplying fluid pressure to the upper sides of pistons 16. The intake of reciprocating pump 18 is not below the intake of rotary pump 5, as required, rather it is at the discharge of rotary pump 5.

In the second embodiment, shown in Figure 8 of Holmberg, reciprocating pump intake 53 is below intake 6 of rotary pump 5, but in the second embodiment, rotary pump 5 is located above reciprocating pump 18. Claim 1 also requires that the reciprocating pump be located above the rotary pump, and the second embodiment of Holmberg does not meet this requirement. It would require an extensive redesign of Holmberg to make the reciprocating pump above the rotary pump, but with its inlet below the rotary pump.

Claim 6 depends from claim 1 requiring a drive piston that is reciprocated by well fluids supplied by the discharge of the rotary pump. Claim 6 requires that the drive piston have an exhausts well fluid to a point below the motor for cooling the motor. Referring to the drawings

of this application, passages 65 and 67 deliver the exhaust of piston 39 to conduit 33. In Holmberg, during the downstroke, exhaust from the lower sides of pistons 16 is delivered to conduit 13 and during the upstroke, exhaust from the upper sides of pistons 16 is delivered to conduit 12. Neither conduit 12 or 13 leads to below motor 4. Both lead to directional valve 11. When valve elements 25 are in the upstroke position shown in Figure 5, the exhaust flows down conduit 12 and out port 37. Port 37 is above motor 4, as shown in Figure 5. When in the downstroke position shown in Figure 6, the exhaust from pistons 16 flows down conduit 13 and out port 38 into the well. Port 38 is also located above motor 4. In both cases, the discharge is not below the electrical motor, as required by the claim. In the alternate embodiment of Figure 8, the exhaust from drive pistons 16 is below motor 4, but the reciprocating pump 20 is not below the rotary pump 5, as required by base claim 1.

Claim 5, which is now independent, requires a sequencing valve assembly comprising a shuttle valve housing and a spool reciprocally carried in the shuttle valve housing. The claim requires that the spool have an upstroke passage that communicates an inlet port with an outlet port of the shuttle valve housing. The claim requires that the spool have a downstroke passage that communicates the inlet port with the downstroke outlet port while the spool is in a downstroke position. In Holmberg, there are no passages in shuttle valve members 25, 27 and 35. Rather, Holmberg discloses a valve stem arrangement with multiple solid valve elements. Claim 7 depends from claim 5, requiring that the shuttle valve have a first piston end in communication with the portion of the discharge of the rotary pump while the spool is in the upstroke position. This communication is via passage 69 of the application. The claim requires that the spool have a second piston end that communicates with the portion of the discharge of the rotary pump while the spool is in the downstroke position. This piston end is the one in

communication with passage 79 of this application. These features are not shown in Holmberg. Rather, Holmberg shifts the valve members by the linkage arrangement of Figure 3.

Claim 8 requires that the reciprocating pump be coupled to a drive piston by a shaft, the shaft having a passage therethrough that leads from the intake to the discharge of the reciprocating pump. This passage is shown by the numeral 85 in Figures 2-4. In Holmberg, shaft 15 is solid. There is no passage leading to the intake. Rather, the intake to pump 20 is via check valve 21 and conduit 12.

Claim 16 requires simultaneously while driving the reciprocating pump, flowing well fluid past the motor for cooling the motor. In Holmberg, electric motor 4 is located within a sealed shell 1. There is no well fluid within shell 1, thus no fluid can flow past motor 4 for cooling. Claim 17 depends from claim 16 requiring mounting the motor below the rotary pump and immersing the motor in well fluid. This is not suggested in Holmberg.

Claim 18 depends from claim 16 further requiring exhausting well fluid from the drive piston to a point below the motor. As mentioned, in Holmberg, the exhaust fluid from drive piston chambers 14 leads to the exterior of shell 1 above the motor.

It is respectfully submitted that the application is now in condition for allowance and favorable action is respectfully requested.

Respectfully submitted,

Date: Oct 6, 2005

James E. Bradley
Reg. No. 27,536
Bracewell & Giuliani LLP
P.O. Box 61389
Houston, Texas 77208-1389
Tel: 713/221-3301
Fax: 713/222-3287
ATTORNEY FOR APPLICANTS